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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,456	01/15/2004	Hans-Dieter Bruckner	MERCK-1963-D01	5067

23599 7590 05/18/2004

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EXAMINER

VALENTI, ANDREA M

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/757,456

Applicant(s)

BRUCKNER ET AL.

Examiner

Andrea M. Valenti

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/230,262.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Priority***

This application filed under former 37 CFR 1.60 lacks the necessary reference to the prior application. A statement reading "This is a divisional of Application No. 09/694,361, filed 10/24/2000 and that it is a continuation of Application No. 09/230,262 filed 5/17/1999 which is a 371 of PCT/EP97/02651 filed 5/23/1997." should be entered following the title of the invention or as the first sentence of the specification. Also, the current status of all nonprovisional parent applications referenced should be included.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation "the respective oxide layers" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites CVD but applicant should define this with in the claim limitation instead of the acronym.

Claims 15-23 and 25-27 are rejected as being dependent from a rejected base claim.

***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent JP 07-246366 to Yamane in view of Japanese Patent JP 63126818 to Kadokura et al.

Regarding Claims 15 and 25-28, Yamane teaches a multi-layer interference pigment with a transparent carrier (Detailed Description English Translation paragraph [0002] Yamane) material coated with a first layer of a high refractive index material, and thereon alternating layers of low refractive index material then high refractive index material (Yamane English abstract), the difference in refractive indices inherently being at least 0.1 (Detailed Description English Translation paragraph [0003] and [0024]), wherein the respective oxide layers of high refractive index consist of a non-absorbing colorless oxide or mixture thereof (Yamane Fig. 2).

Yamane teaches an application on a vehicle but is silent on an application as an agricultural film. However, Kadokura teaches an optical interference substance with an application to both a vehicle and an agricultural film (Kadokura English abstract). It would have been obvious to one of ordinary skill in the art to modify the teachings of Yamane with the application teachings of Kadokura at the time of the invention since the modification merely an alternate equivalent application performing the same

intended function of reducing sunlight intensity modified suppresses the temperatures of the heat rays for enhanced plant development.

Regarding Claim 16, Yamane as modified teaches alternate coating in a wet process by hydrolysis of corresponding water soluble metal compounds, separation, drying (Yamane English Detailed Description paragraph [0040] and [0041]).

Regarding Claims 17 and 21, Yamane as modified teaches the pigment is mica (Detailed Description English Translation paragraph [0002] Yamane).

Regarding Claims 18 and 22, Yamane as modified teaches the pigment oxide of the high refractive index is  $\text{TiO}_2$  (Yamane Detailed Description English Translation [0003]).

Regarding Claims 19 and 23, Yamane as modified teaches the pigment layer of metal oxide of low refractive index is  $\text{SiO}_2$  (Yamane Detailed Description English Translation [0024]).

Regarding Claim 20, Yamane as modified teaches the process of suspending the transparent carrier material in water and coating alternately with a metal oxide hydrate of high and then low refractive index by hydrolysis with the simultaneous addition of acid or base (Yamane English Example [0041]).

Regarding Claim 24, Yamane as modified is silent on the fluidized-bed reactor by CVD. However, it would have been obvious to one of ordinary skill in the art to modify the teachings at the time of the invention since the modification is merely an engineering manufacturing design choice of a selection of an old and notoriously well-known technology for ease and efficiency of manufacturing.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Japanese Patent JP 63286343; Japanese Patent JP 57042756; U.S. Patent No. 4,920,692; U.S. Patent No. 4,090,773; U.S. Patent No. 4,481,254; U.S. Patent No. 5,767,179.

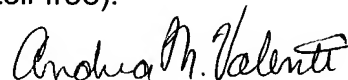
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

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Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

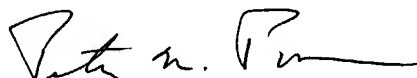


Andrea M. Valenti

Examiner

Art Unit 3643

12 May 2004



Peter M. Poon

Supervisory Patent Examiner

Technology Center 3600

5/13/04